To Forest Service

ANNUAL SUMMARY

INSECTS AND DISEASES

Surveys conducted in early spring of 1970 indicated there would be heavy infestations of Forest tent caterpillar, Oak leaf tier, Virginia pine sawfly and Eastern tent caterpillar.

Surveys were not conducted on other insects and disease but past records indicated build-up of Fall webworm, normal occurrence of Periodical cicada Brood X and stable conditions to prevail on many other insects. Some of these being Locust leaf miner, Yellow poplar leaf mining weevil, the Pine leaf chermid, Fomes annosus, Red-headed pine sawfly, Variable Oak leaf caterpillar, engraver beetles and Elm leaf beetles.

The more common insects reported were those of the leaf galls and leaf miners.

Studies are being continued on Fomes pini, Poria obliqua and Cystopera leucostoma on Wild black cherry.

The Oak leaf tier (Croesia semipurpurana)

On March 24,25, 1970, Alan Miller, forest entomologist did an egg survey for the Oak leaf tier in the Marlinton area to predict the 1970 spring defoliation by this insect. After the results were completed it was estimated 53,000 acres of private and state land would have moderate to heavy defoliation.

A severe frost May 6 coupled with the predicted Oak leaf tier outbreak resulted in near complete defoliation of numerous trees in the Bartow, Marlinton area.

Following the May 6 frost, Alan Miller checked the area in hope that frost had destroyed the newly hatched larvae. Such was not the case, however, and the insects along with the frost defoliated approximately 100,000 acres of oaks from

Bartow to Frankford. It is expected some oak mortality may occur in this area.

Oak leaf tier larvae were collected from this area and reared to maturity. Several species of parasitic insects were reared from the collected larvae and sent to specialists for determination.

The map shows the area affected by the Oak leaf tier. Egg counts or surveys are not completed for 1971, but if conditions are favorable approximately 100,000 acres will have moderate to heavy defoliation.

Forest tent caterpillar (Malacosoma disstria)

Early spring surveys indicated this insect would not be a problem in Tucker County and approximately 60,000 acres in Northwestern West Virginia would have heavy defoliation. The Counties affected being: Tyler, Wetzel, Marshall and Ohio.

An aerial survey made on May 25 in cooperation with the United States Forest Service personnel from Delaware, Ohio failed to accurately describe the areas of defoliation due to the frost damage.

Ground surveys later showed that as the trees began to recover from the frost the caterpillars consumed the new leaves as well as the ones unaffected by the frost complete defoliation resulted.

Another aerial survey by the Plant Pest Control Division in June (25-27), after frost damage would normally have disappeared, revealed approximately 150,000 acres to have been seriously damaged by forest tent caterpillar.

A small area in Preston, Monongalia and Nicholas Counties were the only other areas of infestation by this insect.

The map shows area of infestation for 1970.

No predictions have been made for 1971 since egg surveys have not been conducted. I believe it would be safe, however, to say the insect will occur over 100,000 acres in West Virginia.

Virginia Pine Sawfly (Neodiprion pratti pratti)

In 1966 the Virginia pine sawfly was first found and identified in West Virginia on Camp Creek of Boone County. By means of egg and larvae surveys this insect was found in Logan, Lincoln, Wayne, and Kanawha Counties up until 1969. In 1970 larval surveys and reported specimens increased the area of this insect to twelve new counties. Collections have been made in Randolph, Upshur, Braxton, Clay, Roane, Wood, Jackson, Mason, Putnam, Nicholas, Pocahontas and Pendleton Counties.

Acreage for this insect has not been recorded because most areas scouted have contained scattered pine.

Surveys have not been completed for 1971 predictions and it would almost be impossible to predict areas of infestation except to say the insect is generally spreading.

Eastern tent caterpillar (Malacosoma americana)

The Eastern tent caterpillar has been progressively decreasing in the Western part of the State and increasing in Central and Eastern West Virginia. Not much can be said about the destructiveness of this insect except it seems to be on the decline.

See attached map No. 4

Fall webworm (Hyphantria cunea)

The Fall webworm which was abundant in 1968 (heavy infestation in Northern West Virginia) and few scattered nests observed in 1969 is again in outbreak conditions in Northern West Virginia in 1970. Approximately 150,000 acres were heavily infested in Northern West Virginia.

See attached map No. 5

Gypsy Moth (Porthetria dispar)

As of October no Gypsy moths have been recovered from any of the 3,000 traps placed in West Virginia.

Gypsy Moth - Continued (4)

Meanwhile the moth continues to spread eastward in Pennsylvania and southward in Delaware and Maryland. In Virginia one of the locations where a moth has been trapped is in Rockingham County only 20-25 miles east of Pendleton County, West Virginia.

Attached map showing area trapped No. 6

Periodical cicada. Brood X appeared in West Virginia this year and the range of the brood was mapped by aerial and ground observations. The area of occurrence has changed very little from the last emergence in 1953. The Allegheny Mountain Front marks the wastward boundry.

See attached map No. 7

Brood XI will appear next year in only one area of the State. This being ~~Nicholas County.~~ Fayette

All other insects remained in a rather static condition with no major outbreaks recorded.

Our largest concern is

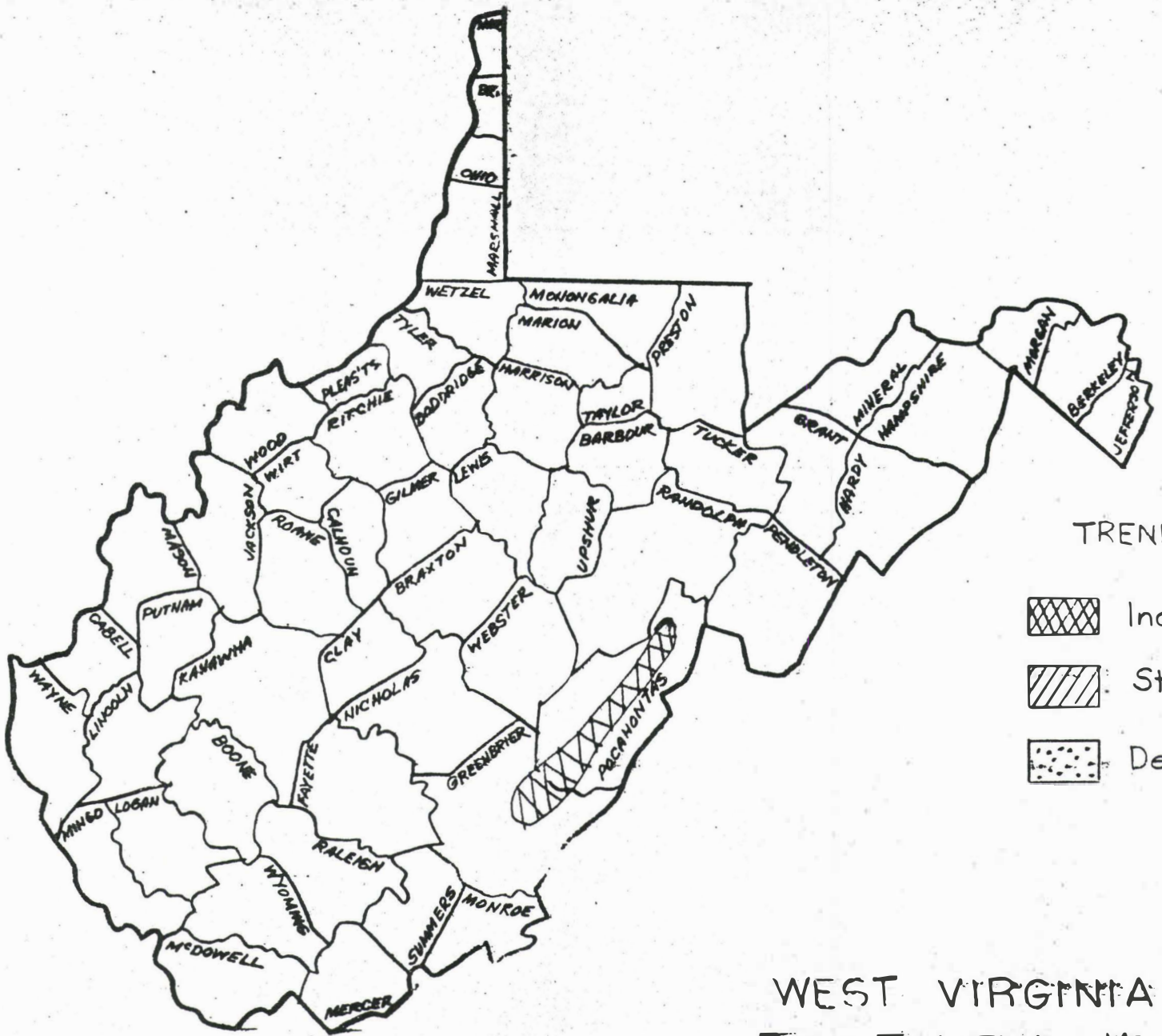
~~One fact will have to be realized this being~~ the combined insect attack of ~~Forest tent caterpillar, Eastern tent caterpillar, Cherry~~ scallop shell moth and Fall webworm, all occurring in Northern West Virginia in the same year. Mortality of many hardwoods is sure to occur.

No insect suppression was used in 1970 and none is contemplated for 1971. However, I believe some areas of the State should be given consideration of suppression.

Respectfully submitted,

Alan R. Miller, Forest Entomologist

No. 1



TREND

Increasing

Static

Decreasing

WEST VIRGINIA

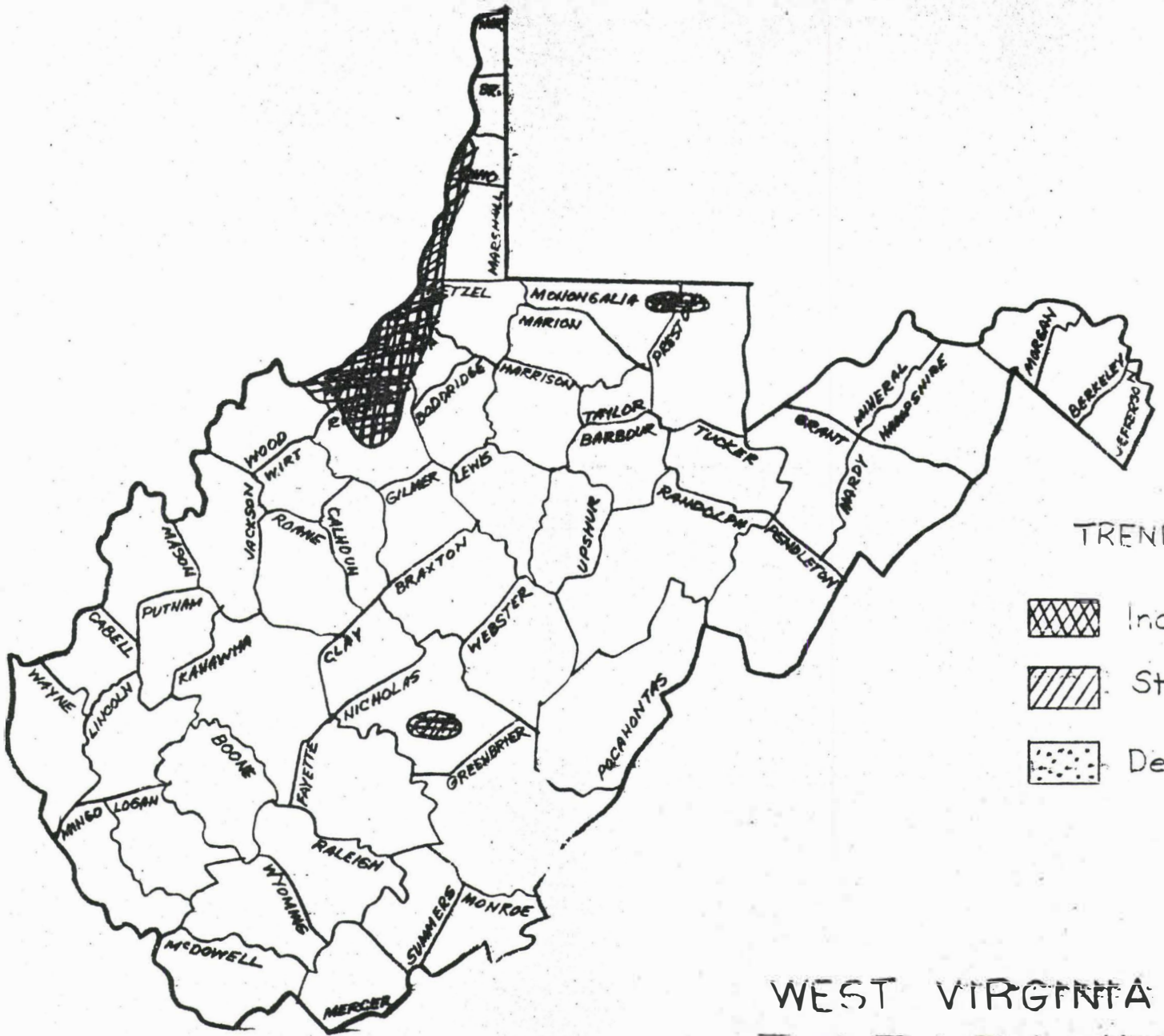
Forest Pest Status Map

Pest: Oak leaftier

Croesia semipurpurana

Year: 1971

No. 2



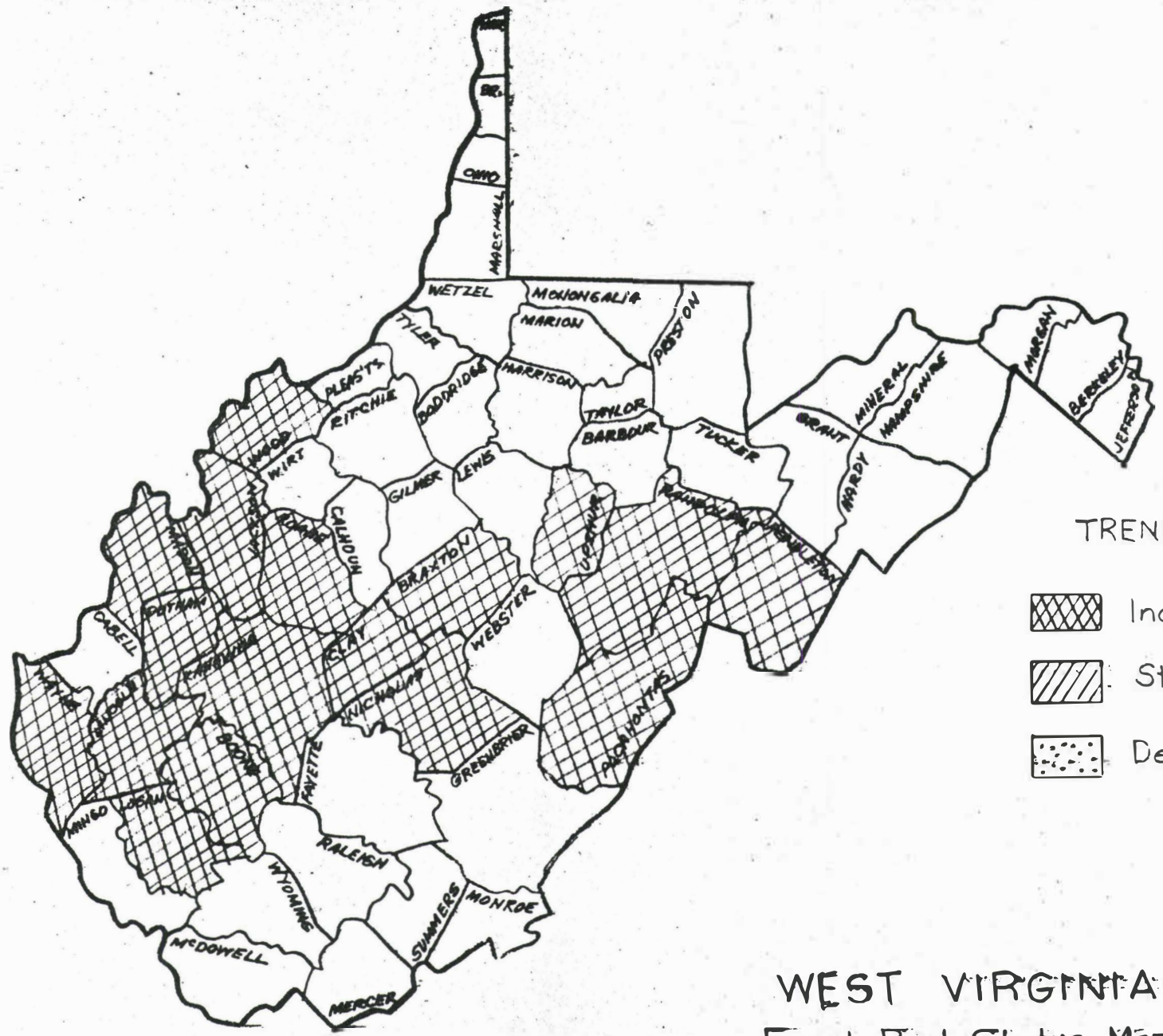
WEST VIRGINIA

Forest Pest Status Map

Pest: Forest Tent Caterpillar
Malacosoma disstria

Year: 1970

No. 3



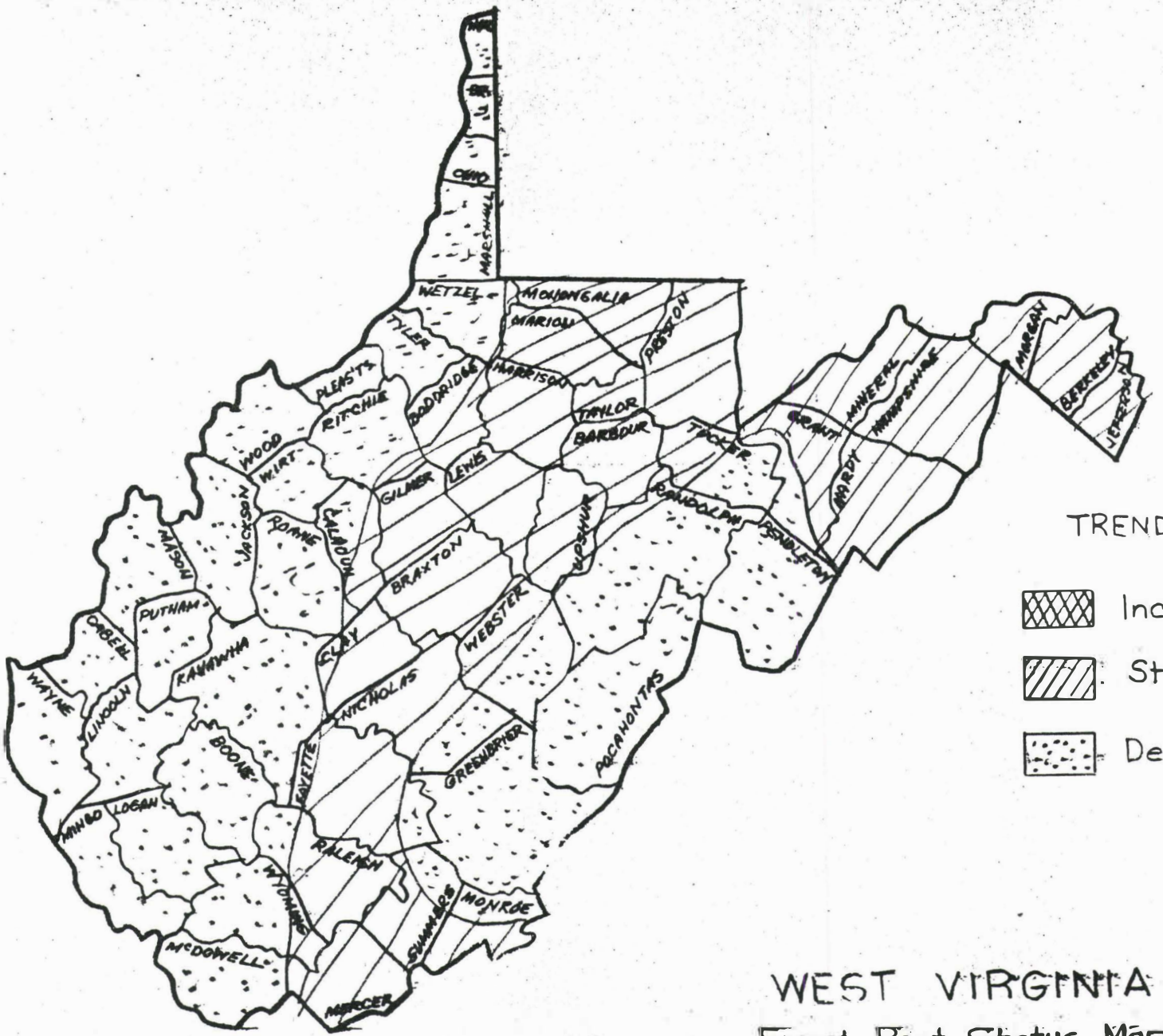
WEST VIRGINIA

Forest Pest Status Map

Pest: Virginia Pine Sawfly
Neodiprion pratti pratti

Year: 1970

No. 4



TREND

- Increasing
- Static
- Decreasing

WEST VIRGINIA

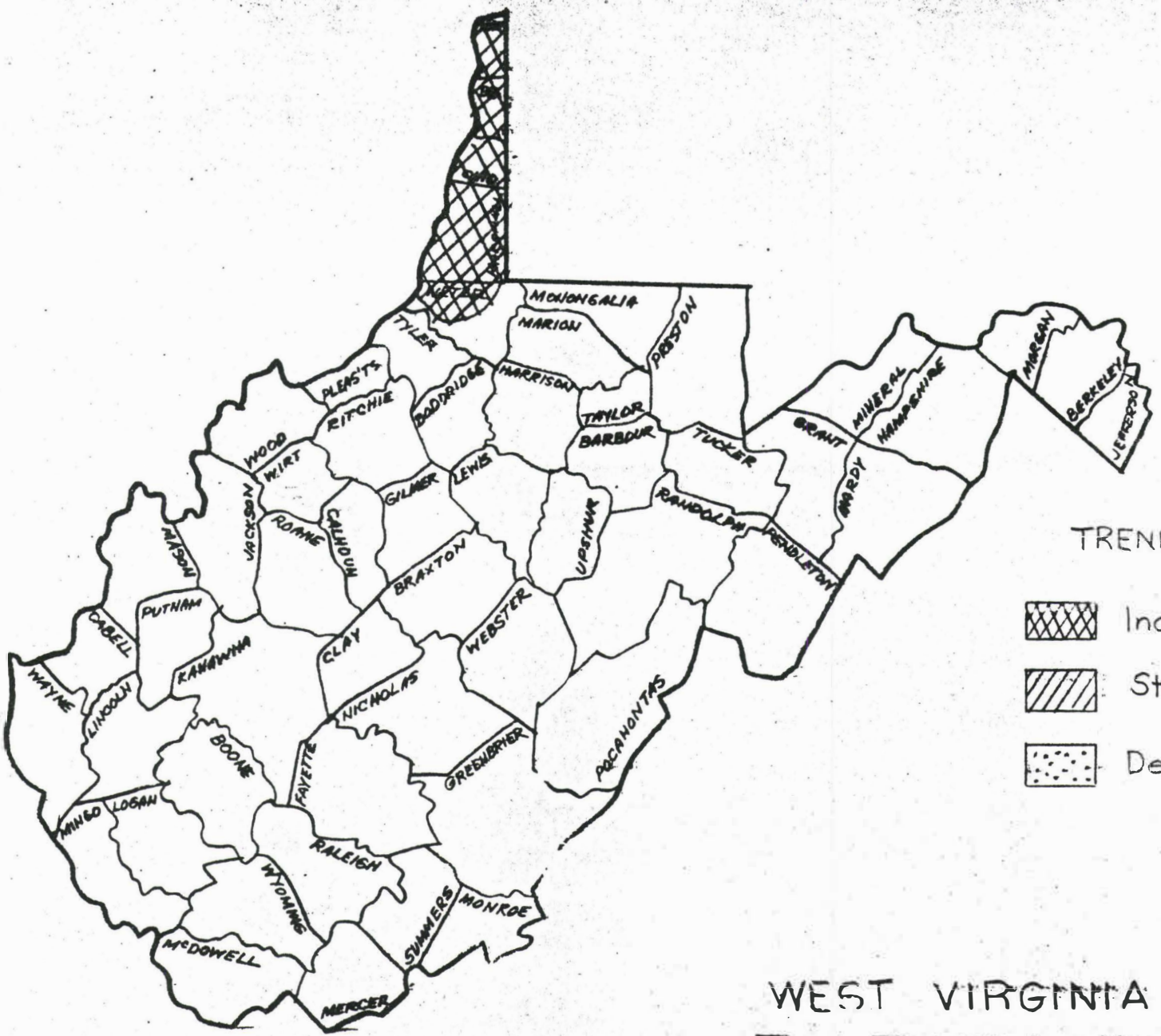
Forest Pest Status Map

Pest: Eastern Tent Caterpillar

Malacosoma americana

Year: 1970

No. 5



TREND

- Increasing
- Static
- Decreasing

WEST VIRGINIA

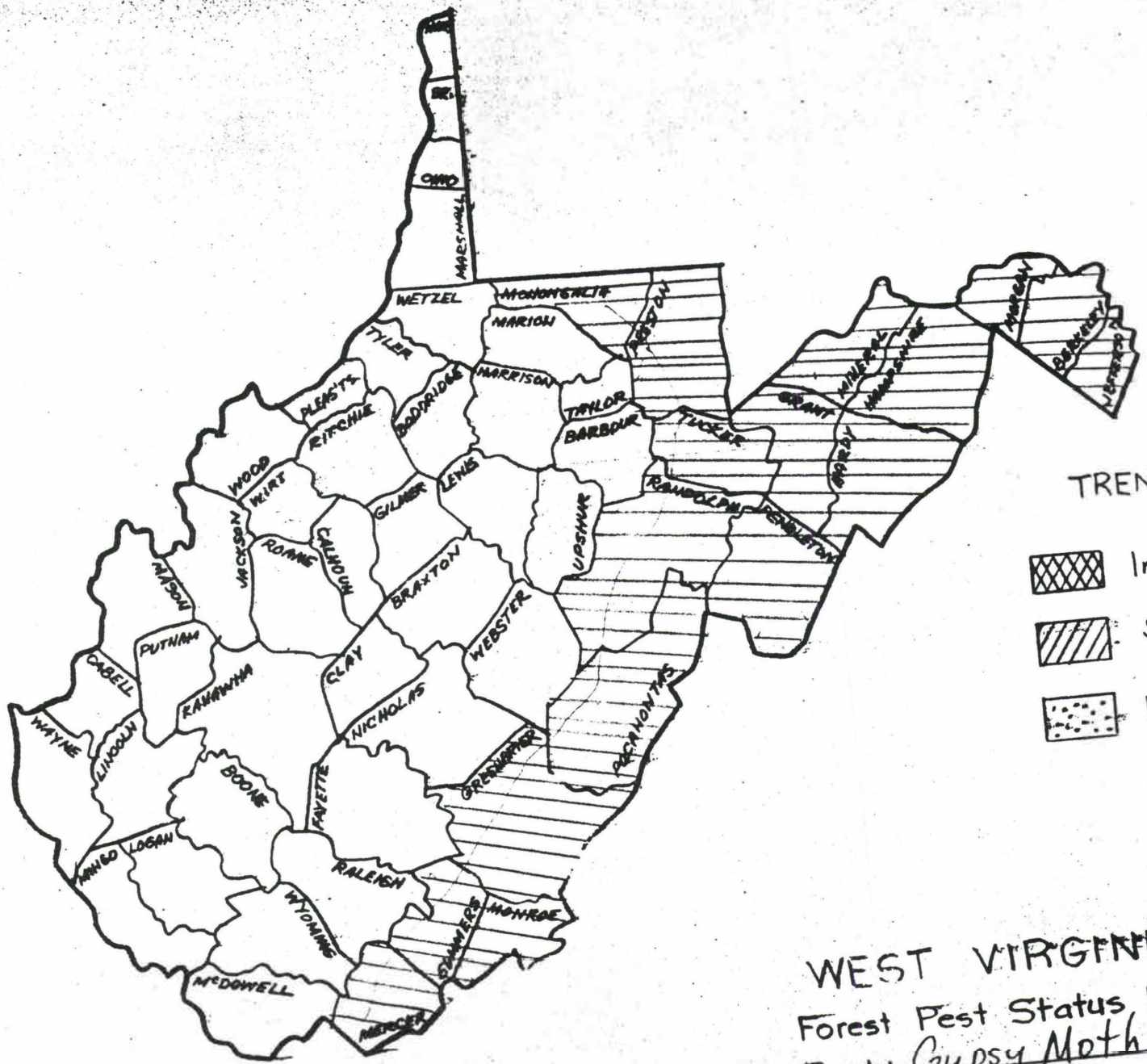
Forest Pest Status Map

Pest: Fall Webworm

Hyphantria cunea

Year: 1970

No-8



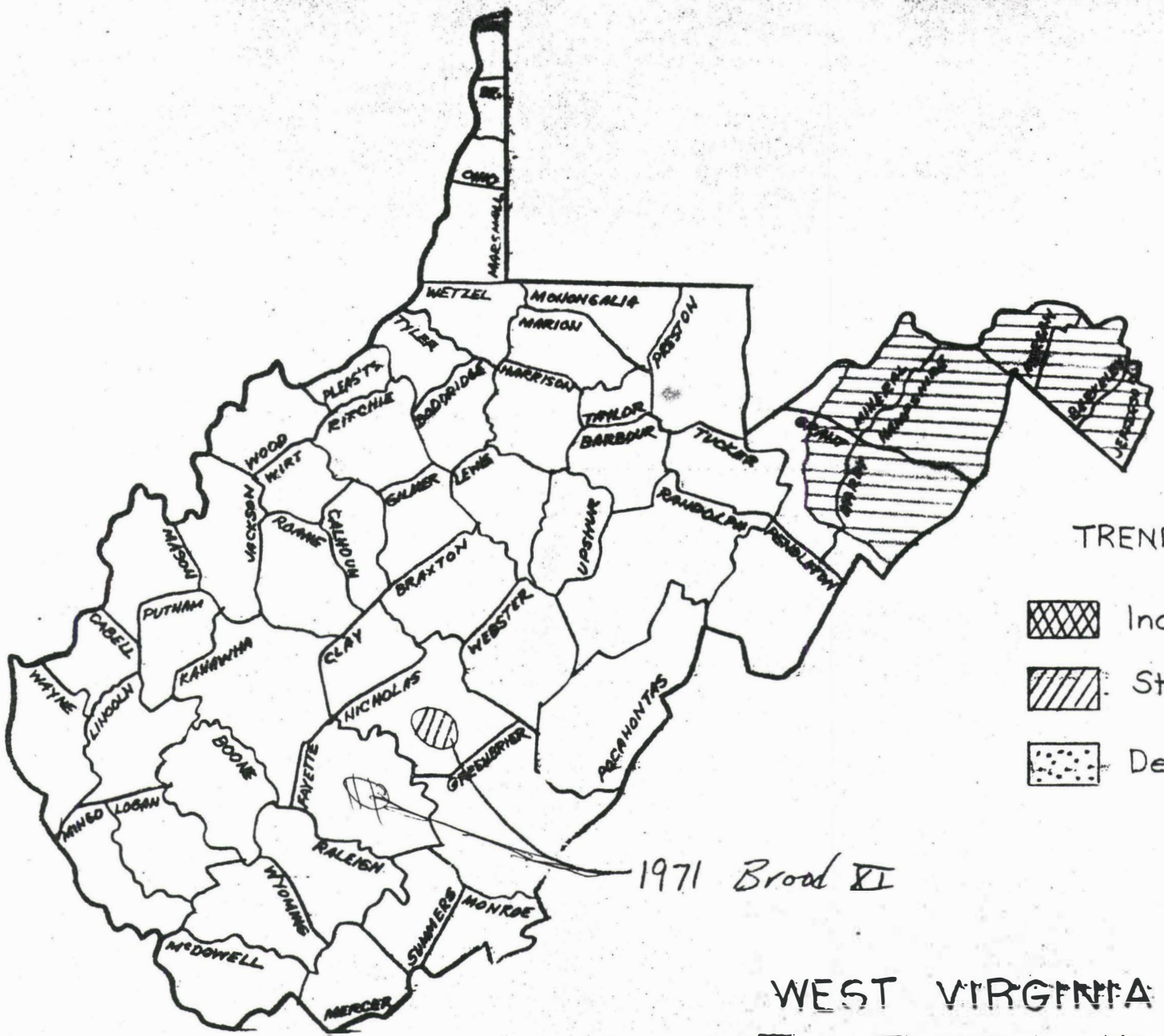
WEST VIRGINIA

Forest Pest Status Map

Pest: Gypsy Moth Trapping

Year: 1970

No. 7



TREND

Increasing

Static

Decreasing

WEST VIRGINIA

Forest Pest Status Map

Pest: Periodical Cicada

Year: 1970 Brood X